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Living near highways

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Chapter 8

Understanding a Resident's Satisfaction with Involvement in a Highway Planning Process



Abstract*

This study investigates residents' satisfaction with provided involvement activities during highway planning processes, focusing on the planned Southern Ring Road highway project in Groningen, the Netherlands. In-depth interviews with 38 residents living in the project area revealed important themes contributing to satisfaction, while accounting for the resident's preferred level of involvement. Satisfaction with passive information activities was motivated by the extent to which information addressed concerns, but also (dis)trust in the government and other information sources played a role. For residents who preferred to seek additional information, perceived access to this information and the extent to which it reduced concerns were additionally important in satisfaction. Finally, for residents who preferred active participation, satisfaction was motivated by perceived access to participation activities and the sense of being heard. The results show how residents' evaluations of the themes behind involvement satisfaction were based on perceived actual project team activities and contextual factors.

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8.1 Introduction

The involvement of residents in governmental planning processes such as the (re)development of highway infrastructure has gained increasing attention over the past decades. Stakeholder involvement is not only supported from a democratic and legal point of view, and therefore incorporated in law in many countries, but it is also associated with more efficient and effective planning when those activities increase trust in the government, improve plans through collecting local knowledge and thereby increase acceptance of projects (e.g., Luyet et al., 2002; Innes & Booher, 2004; Gil et al., 2011; Henningssson et al., 2014). As a consequence, project teams assigned by governments to plan highway projects in the Netherlands (and abroad) nowadays provide several possibilities to residents for involving themselves in such projects.

Following the ladder of Arnstein (1969), the level on which residents could be involved in governmental activities could go from “non-participation”, which is basically a one-way information flow from the planning authority to the public, via “tokenism” which goes towards consultation or asking some input from the public, to “active participation”, i.e. ultimate citizen control, or delegation of decision making towards the public. The importance of high involvement, i.e. active participation of stakeholders such as residents in planning processes is increasingly recognized, also in the field of (transport) infrastructure planning (Gil et al., 2011; Woltjer, 2000; Bickerstaff et al., 2002; Leendertse et al., 2016). Nevertheless, involvement in infrastructure planning has not (yet) reached the highest possible levels of participation (Rijkswaterstaat 2009), partly due to tight project scopes (time, money) and strong national and regional interests dominating local interests.

However, studies also indicate that groups of residents do not always prefer to be highly involved in governmental decision-making, regardless of the involvement possibilities provided (e.g., Bickerstaff & Walker, 2001; Hamersma et al., 2016). Furthermore, several studies indicate that contextual factors, such as culture and historical events, could influence the effectiveness of involvement methods (e.g., Luyet et al., 2012; Stenseke, 2009; Irvin & Stansbury, 2004; Chi et al., 2014; Webler et al., 2001; Hanna, 2016). In addition, the study by Hamersma et al. (2016) showed large variations between residents with regard to their satisfaction with governmental information within highway projects. In other words, whether or not provided involvement activities will be evaluated as satisfactory by residents is also likely to depend on contextual factors, such as their involvement preferences (e.g., Rowe & Fewer, 2000; 2005; Webler & Tuler, 2006).

In order to better understand the implications of involvement activities to (different) residents, it is worthwhile to investigate how and why satisfaction with governmental involvement activities develops during the planning of a highway project. This study addresses this issue, while also accounting for the residents' preferred level of involvement: low involvement via passively receiving information, medium involvement via seeking information, or high involvement via active participation. We assume that motivation behind a resident's satisfaction with involvement activities develops as a result of the interaction between provided involvement possibilities and contextual factors. As far as the authors know, such an in-depth perspective from a resident's point of view has not yet been studied and could contribute to a more *inclusive* picture of factors that stimulate and interfere with satisfaction with governmental involvement activities.

To this end, we conducted in-depth interviews with 38 residents living in the vicinity of the urban highway "Southern Ring Road" in Groningen, the Netherlands, just after the final decision for a large adjustment project had been taken. The neighbourhoods surrounding the urban highway are expected to be subject to several changes with regard to accessibility and liveability as a consequence of the highway adjustment. The governmental project team responsible for the adjustment offered residents several possibilities for involvement in the planning process of the project (Southern Ring Road Project, 2015).

Note that the literature suggests that if participants are (not) satisfied, this does not automatically imply that the involvement process was (in)adequate (e.g., Coglianese, 2003). However, when thinking about what could be done to better match involvement activities to the preferences of (different) residents, it is essential to gain a better understanding of the motivations behind the development of resident's satisfaction with involvement. This could, in the longer term, contribute to increased acceptance of highway projects among residents.

8.2 Background

8.2.1 Conditions for good involvement practices

Residents' motivation for satisfaction with involvement possibilities provided by governments is likely to be related to the quality of the provided activities. According to Dietz and Stern (2008), who studied public involvement in environmental decision-making, good involvement processes should stimulate inclusiveness, transparency, good-faith communication, and collaborative problem and process design. Those aspects largely correspond with other studies of

involvement processes, also in the field of transport infrastructure (e.g., Bickerstaff & Walker, 2001, Bickerstaff et al., 2002).

First, with regard to inclusiveness, all people should be able and encouraged to be involved in the planning process. In their study on participation in transport planning, Bickerstaff et al. (2002) indicate that inclusiveness refers to the capacity of the planning process to include every citizen from the early phases of the planning process onward.

Second, transparency, includes the openness of the process to people (e.g., Dietz & Stern, 2008), or the extent to which external actors (such as residents) are able to monitor and assess the internal processes, decisions and performance of a (governmental) organisation (e.g., Welch, 2012; Grimmelikhuijsen, 2012). The internet is increasingly used as a way to make information more accessible to people and, as such, to create more transparency (Welch et al., 2005).

Third, good-faith communication refers to a two-way dynamic process between the project and its participants (e.g., Dietz & Stern, 2008; Crane & Livesey, 2003). Good communication mechanisms should be provided and communication should address actual concerns (e.g., Dietz & Stern, 2008; Frewer, 2004). Luz (2000) indicates that when environmental knowledge is not communicated in a comprehensible way, people might feel that those who have power are acting arrogantly. Several studies mention that communication needs to be interactive and face-to-face, as correspondence by way of documents and emails is found to be insufficient for creating trust between the actors (Pinto-Correia et al., 2006; Kasperson et al., 1992).

Fourth, and finally, collaborative design focuses on the extent to which participants are really involved in co-design in the project, which corresponds to active participation (e.g., Arnstein, 1969; Rowe & Frewer, 2005; Luyet et al., 2012). Studies agree that collaborative design is better facilitated when participants are involved early in the process (e.g., Dietz & Stern, 2008; Leach et al., 2002). Whether project teams are able to incorporate those aspects may influence the extent to which residents will be satisfied with the involvement possibilities.

8.2.2 Involvement and contextual factors

Whether or not the provided involvement activities will be satisfactory to residents may also be influenced by contextual factors. For example, a limited number of studies indicate that cultural/political issues (such as the type of institutional setting, social aspects such as the way residential areas are organised, and historical

aspects such as previous experiences with projects) may play a role in understanding how involvement methods will be evaluated (e.g., Luyet et al., 2012; Stenseke, 2009; Irvin & Stansbury, 2004; Chi et al., 2014; Webler et al., 2001). The study by Irvin and Stansbury (2004) indicates that involvement efforts are more beneficial in residential areas with good neighbourhood representatives, as well as in instances when the topic of involvement is of high interest to stakeholders. Other studies indicate that expectations about the role of the government, often based on earlier experiences, may cause suspicion among stakeholders (Rowe & Fewer, 2000; Coglianese, 2003; Bailey, 2010; Edelenbos & Klein, 2007). Along the same line, Welch et al. (2005) argue that trust is a subjective attitudinal indicator rather than an objective indicator of governmental performance. In the context of Not In My Back Yard (NIMBY)-research from which highway development could be understood, the importance of trust is especially stressed in situations that involve involuntary risks, such as unwanted developments (e.g., Schively, 2007; Frewer, 2004). The study by Hamersma et al. (2016) gained some insights into groups of residents who were less satisfied with provided governmental information in two highway projects in the Netherlands. This study indicated a significantly lower information satisfaction for older residents, households with children, and individuals with few contacts in the neighbourhood. As contextual factors may differ among residents, it is likely that residents evaluate the same involvement activities differently.

Another issue to take into account in understanding the development of satisfaction with involvement activities is that not every resident prefers to be highly involved in infrastructural processes. Studies in other contexts such as environmental and community projects provide several reasons for the non-participation of individuals, such as: other priorities; the fact that concerns were adequately addressed; not being directly affected by the project; unwillingness to take responsibility; participation fatigue; discouraging previous experiences; overall trust in the government and their actions; a lack of understanding of what the project or involvement procedures are about; a perceived lack of skills needed to participate; little connection to the neighbourhood; and character traits such as illiteracy, laziness, indecisiveness or apathy (e.g., Diduck & Sinclair, 2002; Chi et al., 2004; Cornwall, 2008). In general, studies agree that project opponents are more likely to actively participate than project supporters (e.g., Mansfield et al., 2001; Wright, 1993; Hamersma et al., 2016). Furthermore it is argued that stronger socio-economic groups especially have more available time to invest in public engagement processes (e.g., Costa & Kahn, 2004; Mansfield et al., 2001; Grillo et al., 2010; Hamersma et al., 2016) and are, in that sense, less vulnerable to being excluded from involvement practices. In the present study, we analyse motivations

behind the development of satisfaction with provided involvement activities while accounting for a resident's preferred level of involvement.

8.2.3 A Research model for studying residents' involvement satisfaction

Figure 8.1 provides a conceptual framework that forms the basis for our empirical analysis. Following the participation ladder of Arnstein (1969), we identified a hierarchy of involvement levels, but from a resident's perspective. Residents could be "preferred to be involved" on a low, medium and high level. In our study, low involvement is defined as passively receiving information from the governmental project team. Medium involvement is defined as actively seeking information. High involvement means actively participating in the governmental planning process. Residents could have had different motivations for (a change in) their "preferred involvement levels" during the planning process (e.g., Diduck & Sinclair, 2002; Chi et al., 2014; Mansfield et al., 2001). Residents who preferred to be involved on higher levels (most of the time) also preferred to be involved on lower levels, but not the other way around. As a consequence, the group of residents who preferred to be involved on higher levels is formed by a selection of the people who preferred to be involved on lower levels.

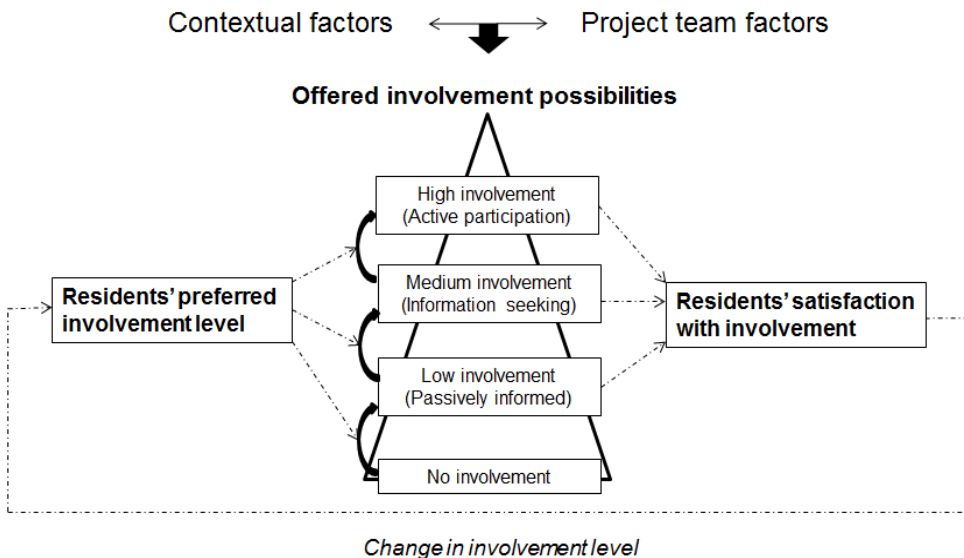


Figure 8.1 Research model on factors behind the development of a resident's involvement satisfaction.

We study motivations behind the development of residents' "satisfaction with involvement" in relation to their preferred involvement levels during the planning process. The development of this satisfaction could be influenced by the quality of involvement provided, i.e. project team factors (e.g., Dietz & Stern, 2008; Bickerstaff et al., 2002), but could also have been influenced by contextual factors (e.g., Rowe & Fewer, 2000; 2006; Coglianese, 2003; Bailey & Grossardt, 2010; Diduck & Sinclair, 2002; Hamersma et al., 2016). Furthermore, (dis)satisfaction with involvement on a certain level could have been a reason for preferring to move up or down the involvement ladder during the planning process (see Figure 8.1- "Change in involvement level").

8.3 Research design

8.3.1 Research Context: the Southern Ring Road Groningen redevelopment project

This study analyses residents' motivations in the context of Dutch highway planning. In the Netherlands, national highway planning projects are decided upon by the national government. The responsibility for the planning of such a project is given to a governmental project team that consists of representatives of Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and the Environment), sometimes complemented by regional and local governments (Ministry of Infrastructure and the Environment, 2014). Conforming with the Aarhus treaty (1998), project teams have to offer both formal (recorded in law) and informal (additional) possibilities for residents and other stakeholders to be involved in the planning process. Generally speaking, those activities consist of both communication and participation possibilities. Although possibilities for residents to participate are increasing, the possibilities currently provided are still mainly on the level of public consultation (see also Rijkswaterstaat, 2014; Leendertse et al., 2016). Stakeholders opposing the project and who hand in a formal reaction could bring a project to court after the final decision (In Dutch: "Tracébesluit") is taken. The execution of highway projects in the Netherlands is given to construction companies selected and supervised by the governmental project team.

Using the conceptual framework as presented in Figure 8.1, this study analyses the development of residents' satisfaction with involvement possibilities on different preferred involvement levels in the specific case of the "Southern Ring Road" project in Groningen, the Netherlands (see Figure 8.2). The Southern Ring Road is an urban highway serving as a connection between the West of the Netherlands and Germany, crossing several neighbourhoods of the city of Groningen along the

way (see also Hamersma et al., 2016). Plans for a large adjustment of the highway and the surrounding area have existed since 2008. The project intends to improve accessibility, liveability and traffic safety by, among other things, changing connections and traffic directions, removing traffic lights, and by designing a park that is to cover part of the highway, reconnecting neighbourhoods which were separated by the construction of the urban highway in the 1960s (Southern Ring Road Project, 2015). Recently, the final decision ("Tracébesluit") was taken by the Ministry. At the time of the fieldwork, several stakeholders groups -among which the citizens' group "Stichting Leefomgeving"- had started a court case in order to stop the project from being started. The Stichting Leefomgeving feels that the project will cause a decrease in accessibility and liveability for at least a part of the residential neighbourhoods, especially in the Rivierenbuurt and Helpman areas (see Figure 8.1). The realization of the project is planned between 2017 and 2021.

In line with other infrastructure projects in the Netherlands, the responsibility for the project is given to a governmental project team that is formed by Rijkswaterstaat, the Province of Groningen and the Municipality of Groningen. During the planning process, the project team strived to involve stakeholders in their activities with the aim to "build trust and respect to come to a better plan and to improve decision making" (see also "Tracébesluit A7/N7 Zuidelijke Ringweg Groningen fase 2", 2015). In organisational terms, stakeholder involvement has so far consisted of formal and informal communication and participation activities. We will shortly discuss the provided involvement activities for residents while referring to the three preferred involvement levels as defined in Figure 8.1. With regard to low involvement, information was passively provided to residents on different moments during the planning process by means of information brochures and through local media. Regarding medium involvement activities, the project team provided several possibilities for stakeholders to additionally seek information. An interactive website containing information about the content and process of the project has been created for this purpose. Additionally, people could subscribe to a digital newsletter. Furthermore, citywide information meetings and, later on, more neighbourhood-specific information meetings were held at several stages during the planning process (Southern Ring Road Project, 2015). Finally, with regard to high involvement, residents were given the possibility to participate in the project in both formal and more informal ways. More formally, they could react to the plans in writing at several prescribed moments in the planning process (In Dutch: "Zienswijze"). More informally, a large meeting was organised in the exploratory phase of the project where citizens were given the opportunity to voice their opinions about different project alternatives. Additionally, discussion platforms were set up for several groups of stakeholders and, later on, several working groups

were organised to develop four specific neighbourhood design plans. According to the project team, several changes in the plan design were made based on the input of citizens (Southern Ring Road Project, 2015). Table 8.1 provides an overview of the main involvement activities set out by the project team.

Table 8.1 Involvement activities of the Southern Ring Road project team.

Preferred level of involvement (residents' perspective)	Involvement possibilities provided on involvement level
Low involvement (passive information provision)	<ul style="list-style-type: none"> - Brochures on several moments in the planning process - Information in local media
Medium involvement (activities for active information seeking)	<ul style="list-style-type: none"> - Project website - Information meetings/markets city broad - Neighbourhood information meetings
High involvement (activities for active participation)	<ul style="list-style-type: none"> - Giving formal reaction at several moments in planning process - Project broad discussion groups - Neighbourhood specific workgroups

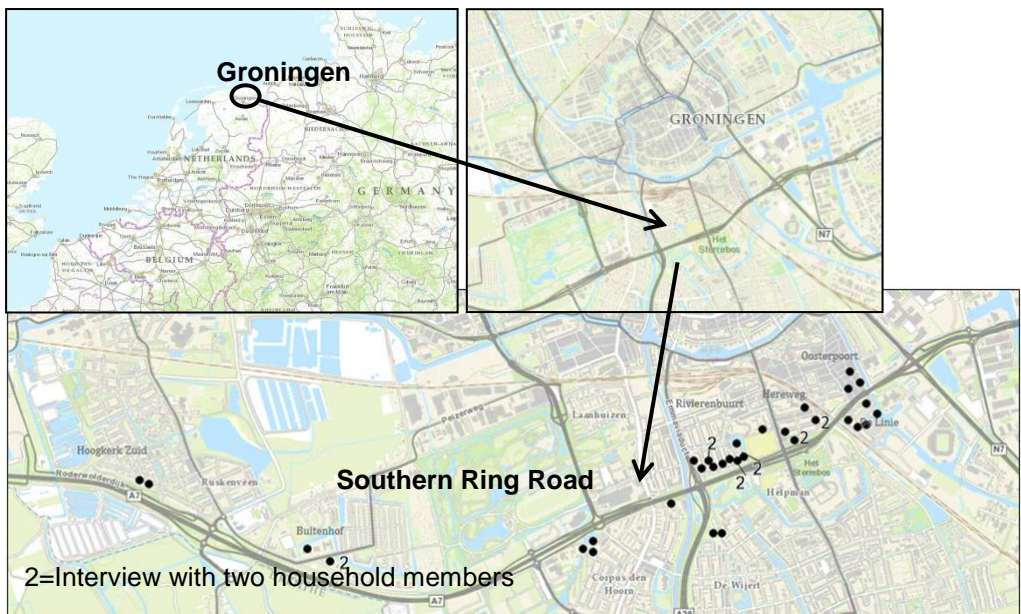
8.3.2 Data collection

We conducted interviews with 38 residents in 32 households living in the vicinity of the planned Southern Ring Road highway adjustment project. Our main selection criterion was to include residents with different involvement preferences for and satisfaction with involvement in the highway adjustment planning process. In addition, we aimed for variation with respect to age, household type, house type, home ownership, distance from the highway and neighbourhood. We recruited respondents in three ways. The majority of residents were recruited via an invitation letter in their letterbox, in which we announced that we would be ringing at their door in a few days to ask for their participation. A second group was formed by participants from an earlier survey in 2011 (see also Hamersma et al., 2015), in which they indicated their willingness to participate in additional research on the same research topic. To assure enough variation, a third group was approached via snowballing, i.e. recommended by other interviewees or by representatives of neighbourhood committees. To better understand the context of interviewees' stories, we also interviewed some representatives of the project team, citizens' groups and neighbourhood committees.

Following ethical considerations, we informed all residents about the general purpose of the study, the research team, the handling of data and the duration of the interview. We communicated that participation was voluntary and gave people the possibility to withdraw from the interview at any moment and to check the transcripts afterwards, complemented by signing a letter of consent (see also

Hamersma et al., 2015). Figure 8.2 provides an overview of the geographical location of our interviewees.

The interviews were conducted in April, May and June 2015, just after the final decision (In Dutch: “Tracébesluit”) of the project by the Minister. The interviews mostly took place in the residents' homes and had a semi-structured design. We started in an open manner, by asking residents about their general residential experience. After this, the highway adjustment project and the resident's involvement in the project were discussed. We tried to get more insight into motives behind the development of interviewees' preferred level(s) of and satisfaction with provided involvement possibilities by reflecting back on their experiences with involvement in the planning process so far.



NB To guarantee anonymity, the respondent numbers are not presented on the map.

Source: ESRI 2015.

Figure 8.2 Map of research area (the respondents' homes are marked with dots).

The interviews were transcribed and coded afterwards, based on thematic coding by use of ATLAS-TI. Thematic coding is a way to organise data based on key themes, concepts and emergent categories across cases (Ritchie & Lewis, 2003; p.220). Respectively, we manually coded 1) motivations given by interviewees for (developments in) the preferred level of involvement in project team efforts during

the planning process, and 2) motivations of interviewees important in the development of satisfaction with the experienced provided involvement possibilities. In addition, we coded specific project team-related or contextual factors described by (at least two) residents as relevant in understanding their motivations. Key themes were identified based on the relevance to the research objectives, the frequency with which they were mentioned, and the extent to which they resulted in differences between groups of residents (e.g., Wakefield et al., 2001) and were discussed among the researchers in the team. Opinions of residents were included on every level they preferred to be involved.

8.4 Satisfaction with involvement efforts among residents: Research findings

This section presents our findings with regard to the development of satisfaction with involvement from a resident's perspective. We refer to themes which appeared important in understanding this development, while accounting for the different preferred involvement levels. The defined themes are visualised in Figure 8.3. Table 8.2 provides an overview of personal and project-related aspects being described by residents as important in understanding their experiences on the defined themes.

8.4.1 Low involvement: Satisfaction with information efforts

All interviewees indicated to have passively received (some) information from the project team about the planned Southern Ring Road project. They all prefer to be informed about the plans and consider this to be a governmental responsibility (Figure 8.3-left). Nevertheless, it was noticeable that many interviewees were only able to explain what the project would be about to a limited extent. The most important motives in understanding the development of a resident's satisfaction with passively provided information were centred around: The level to which it addressed concern, (dis)trust in the government and (un)supportive other (trusted) sources (Figure 8.3-right).

(Un)addressed concerns through information provision

An important factor in understanding the development of an interviewee's satisfaction with passively provided information was the extent to which the information addressed their concerns i.e. was perceived as sufficient in amount and content. Residents especially motivated that sufficient information about the

project planning to understand what it means for their daily activities and about the impacts on the resident's direct neighbourhood on a regular basis were evaluated positively in this respect (see Table 8.2-"Project team factors").

Furthermore, residents provided examples of contextual factors that influenced why their concern was more (or less) easily addressed by the project team information (see Table 8.2-"Contextual factors"). For example, some interviewees mentioned that, based on the information received, they felt that the project would not change their direct environment in a negative way. For example, most residents in the Oosterpoort area indicated that their concerns were addressed when they read that a park is to be created in their immediate surroundings. Others mentioned that they only expect a small number of changes in their immediate residential environment, which made them more easily satisfied. As one woman indicated:

"No, I did not search for more information. Especially because I saw that only little will change in my immediate environment. If I would have lived in the Vondellaan (a street where traffic intensity might change due to the project, see Figure 8.2), I probably would have searched for more information." (Respondent #7, female, 40-60)

Some interviewees also indicated that information addressed concern, as they see the importance of improving car accessibility of the city for their own interests or for the city's economic potential. Again, some other interviewees reported that concerns were more easily addressed as they have plans to move house and may already be gone by the time the project is to be executed. As one man living in a rental home directly facing the Southern Ring Road indicated:

"Well, maybe something to take into account is that we thought that, by the time this is all going to happen, we may have already left the area." (Respondent #16, female, 20-40)

Also a lower attachment to the neighbourhood and as a consequence a lower interest in what happens in the neighbourhood was mentioned as a reason for concerns to be more easily addressed. Some interviewees, especially interviewees of younger age or with rental houses, indicated that they did not bother that much, as they feel flexible in dealing with change, for example because of a perceived ease to move elsewhere. Some even mentioned that they should not complain about the amount of governmental information provided because of their own lack of interest in searching for additional information. As one young woman living directly alongside the Southern Ring Road mentioned:

“Yes, I think I received enough information. If you wanted to have more information you could have gone to an information meeting. But I did not do that because I was not interested enough. So, that was my own responsibility.” (Respondent #11, female, 20-40)

Additionally, some residents indicated that their concerns were addressed by the project team information for now, as the actual execution of the plan is still far away and they do not want to be bothered with it yet. A respondent directly alongside the Southern Ring Road highway indicated:

“Well it is enough for now, as I feel it will still take a long time before the execution will actually start. I feel it is still too far away for me to be interested in it.” (Respondent #27, male, 20-40)

Nevertheless, another group of residents who, based on the information, were under the impression that – in their eyes potentially negative – changes are going to take place in their neighbourhood, indicated that the information passively received from the governmental project team was too superficial and as such their concerns were not addressed. They felt some more detailed information on neighbourhood impacts would have been welcome. As one man living directly alongside the Southern Ring Road stated:

“If you want to have detailed information, you really have to put in effort to get it. It is not in the ordinary brochures that are being distributed.” (Respondent #12, male, 60+)

8

(Dis)trust in the government

Apart from whether the information sufficiently addressed concerns, another important theme in how residents motivate their satisfaction with governmental information is their overall trust in governmental actions. Some residents mention that they feel they could trust the project team and believe they are capable to do their work with the best intentions for the public, which increased the ease of satisfaction with provided information (see Table 8.2-“Contextual factors”). This was directly opposite to another group of interviewees who expressed a general distrust in the government. Although this group thought the information they received was sufficient, they feel that the governmental project team tried to sell their activities to their residents. As one woman mentioned:

“It is not that I am not satisfied with the information because of some insufficiency in the topics, but I just do not trust the source of the information, the government.” (Respondent #7, female, 40-60)

Trust in information provided by the project team is also influenced by earlier experiences with infrastructural projects or governmental actions in the past. For example, some residents indicate that, during the previous highway adjustment project in 2008, some nice trees were also in the pictures, however, these trees were not realized in the end. One woman living alongside the Southern Ring Road mentions:

"Yes, I think there is a chance that those nice things they present will not be realized. In the end the things I like a lot will probably be cut because of financial limitations. It is just life experience that it works like that." (Respondent #28, female, 60+)

Residents also refer to a disbelief in the information when they feel that the information is not in line with their perceived actual situation. For example, some residents refer to what they perceive to be unrealistic future noise calculations (generally based on future projections of the traffic situation) behind the information presented by the project team in expressing their distrust. For example, one woman mentioned that the project team information indicated that the calculated noise level around her house in the new situation will be just 0.5 decibel (dB) below the legally allowed limit. She feels this to be so close to the norm that she doesn't believe it.

"Well, their conclusion was that the future exposure level surrounding our house will be 0.5 decibel below the limit. But then you talk about the highway, and not about the extra connecting road they are also going to construct here. But then they say: 'We are not obliged to take further measures because of that.' This just doesn't feel right." (Respondent #19b, female, 40-60)

Residents also provided examples of how their trust in the information developed during the planning process (see Table 8.2-"Project team factors"). Residents indicate that the project team's effort to provide a frequent update of the project developments, to information about positive and negative impacts, and to present opinions of both supporters and opponents of the project in their information provision positively contributes to trust. The other way around, residents who experienced contradiction in the provided information express a reduction of trust in the government during the planning process. As one critical respondent indicated:

"First, they said that 5,000 cars are going to be passing along the planned new parallel road. Later, they said 10,000. Now, it is 11,000...You do not know what to believe anymore." (Respondent #18a, male, 40-60)

(Un)supportive other (trusted) sources

Furthermore, residents described that the extent to which they trust the provided governmental information is also influenced by the information they have received from other (trusted) information sources. Some residents referred to information sources that support their trust; they know someone who works for the (local) government from which they regularly receive some information about the project which is in line with the information provided by the project team (see Table 8.2- "Contextual factors"). For example, a female respondent living in the Rivierenbuurt area where considerable changes will take place, mentioned that her son in law works for Rijkswaterstaat (one of the parties represented in the project team). He told her about the necessity of the project for the greater accessibility of the city and the region. This increased her trust in governmental information and understanding of why the adjustment project is needed.

"At first, I did not really understand why this adjustment is needed because I do not have the impression that there are a lot of traffic jams around here. And I asked my son-in-law who works for Rijkswaterstaat about it. He said, well, they make these plan based on their expectations for the future, towards 2025. So that is why this is needed." (Respondent #15, female, 60+)

However, other residents referred to information sources that led them to doubt the information provided by the project team. For example, some residents referred to the information they received from action groups against the project, which reduced their trust in the governmental information. This was especially the case for people who had good contact with someone who was active in an action group or had concerns about changes in their direct environment based on what they heard. Several residents indicated that they preferred to receive information from both "sides", in order to be better equipped to make a personal evaluation of what the project is about.

"Well, you have to collect information from different sources, from the opposing groups, and from the project team. Then you should delete the extremes in both, then you are close to the actual situation. Because the opposing group also makes use of things that go too far in my opinion..." (Respondent #2, male, 60+)

8.4.2 Satisfaction with active information seeking

A portion of the interviewees indicated that they preferred to seek additional governmental information based on what they heard about the project. The project

team provided possibilities for residents to seek information on the project website, via digital newsletters or by attending information meetings. Most interviewees motivated their active search for additional information by a general interest in neighbourhood developments or in infrastructural projects, or by concerns remaining unaddressed based on what they (passively) read or heard about the project. Three older residents who are concerned about the impact of the plans on their surroundings indicated they also go to neighbourhood-specific information meetings in order to discuss their concerns with neighbours. Some interviewees indicated that their preference to seek additional information increased during the process due to new information they passively received and which raised their interest or concern. For example, some residents referred to a questionnaire about the highway project sent by the local university in 2011¹³, which made them realize they should know more about the project (see Figure 8.2-left). Satisfaction with active information seeking was mainly expressed by the extent to which residents felt they had access to the information they were looking for or the extent to which it helped in reducing their concerns (See Figure 8.2-right).

Perceived access to preferred additional information

From the residents who preferred to be involved in information seeking activities, several people motivated their satisfaction by the extent to which they were indeed able to find the information they wanted. Most interviewees indicated that it was easy to find additional information on the project website. In addition, interviewees who went to information meetings were generally positive about the access to locations and times of the information meetings, although some people indicated that they would have liked to go but had other priorities on those days.

Nevertheless, interviewees indicated that things got more difficult the moment the information provided on the website or information meeting did not address their questions. Some residents indicated that they had problems to actually get the preferred information quickly; more detailed information about aspects of the project needs to be requested in a formal way, which costs time (see Table 8.2 "Project team factors"). This point was especially brought up by people with strong concerns about the project (see Table 8.2 "Contextual factors"). As one female indicated:

"Well, if you wanted to have more specific information, you needed a WOB (a legal request to get openness of information from the government). They just do

¹³ The questionnaire was sent to several residents in the vicinity of the highway in 2011 as part of the same research project. Some of the interviewees were recruited via their participation in the questionnaire.

not give you these data. The underlying calculations are not provided, only the end result. And arranging this takes a while....” (Respondent #19b, female, 40-60)

Reduced concerns

In addition to perceived access, residents expressed their satisfaction with information seeking by describing how those possibilities influenced their concerns. For example, several residents who attended information meetings indicated that they liked the possibility to have a face-to-face conversation with the people behind the project (see Table 8.2 "Project team factors"), which created more trust and as such reduced their concerns.

“Well, we had a meeting at a school close to our home, that was good. And they showed the people behind the project; that also helped to create trust I think.” (Respondent #18a, male, 40-60)

Furthermore, some residents indicated that the possibility to get an impression of what the future noise level will be like by a noise simulator reduced concern about what will happen. As a woman indicated:

“I liked the possibility to listen to the future noise levels, this is what so many or this is what so many decibels sound like...” (Respondent #4b, female, 40-60)

By contrast, some residents indicated that their concerns were increased by attending an information meeting during which a lot of questions posed to the present representatives of the governmental project team remained unanswered. This was partly due to the fact that the representatives were not familiar with all the details about the implications of the project on specific neighbourhoods. In addition, several details about the final project design were not yet decided upon or will be filled in by the construction companies responsible for the execution of the project. Residents sometimes want to be informed about aspects that the project team itself is not yet sure about. As one man indicated:

“Well, we recently visited an information meeting in which the party Groningen Bereikbaar (the party who will streamline the planning of different projects in the city) was going to explain more about the project. However, this Groningen Bereikbaar left a lot of questions unanswered. A lot of things are still dependent on the contractor. As such a lot is still uncertain.” (Respondent #4a, male, 40-60)

8.4.3 Satisfaction with active participation efforts

A final group of interviewees preferred to be actively involved in participation activities provided by the project team. Interviewees had the possibility to participate in the general platforms which were organised on a regular basis ("Klankbordgroepen"), in the neighbourhood specific discussion meetings ("Werkgroepen"), and/or by submitting a formal reaction ("Zienswijze") to the project. A main difference between those aiming and not aiming for participation was the level of concern about the plans for the personal situation. Most interviewees who preferred to actively participate indicated that they felt that the plans were going to have a direct, negative impact on their residential satisfaction. Furthermore, respondents were sometimes participating as a consequence of perceived social cohesion; some people indicated they were participating as they wanted to represent their neighbourhood, others indicated that talking with neighbours about the project had stimulated them to voice their opinions together in order to try to avoid potential negative consequences. A woman living in the Oosterpoortbuurt area, however, indicated that she was triggered by her neighbour to participate in governmental activities as supporters of the project in order to somewhat counteract the voice of the opposing residents. Another interviewee indicated his motivation for active participation by stating that he learned from previous experiences with highway adjustment that it was important to voice one's opinion in an early stage in order to avoid problems in later phases. Most residents who preferred to actively participate felt they had some knowledge or ideas about how to improve the plan (see Figure 8.3-left). Two main themes appeared relevant in the motivations in the development of residents' satisfaction with active participation efforts: perceived access to active participation possibilities, and the feeling of being heard (see Figure 8.3-right).

Perceived access to active participation activities

Interviewees referred to their perceived access to participation activities in expressing their satisfaction. Some respondents who aimed to actively participate via submitting a formal reaction ("Zienswijze") perceived difficulty in manually doing this (see Table 8.2 "Project team factors"). They thought the system was complex and time-consuming, and those difficulties made them feel less satisfied with the way they participated. One woman indicated that she took advantage of the possibility to give her formal written reaction to the project during one of the organised information markets where the project team offered assistance in doing so. She felt that this was convenient. Nevertheless, as she was not that well prepared, she did it too quickly, and as a result, did not really think it through.

“Well, it was convenient that they provided the possibility to submit your formal reaction to the project during the information meeting. However, as a result, I feel that I did it too quickly and did not really think it through. It was possible to change it again afterwards, but that I felt was rather complex...” (Respondent #4b, female, 40-60)

In addition, some (especially female) interviewees indicated that they thought that the provided informal possibility to participate in discussion meetings was not attractive as they did not prefer to give their opinion in public. Rather, they indicated that they would be willing to participate and give their reaction in a one-to-one setting or via a more anonymous medium, such as a questionnaire. For example, one woman stated:

“I do not like to participate in discussion meetings, as they are time-consuming and do not feel convenient. However, I would have been willing to participate, for example by filling in a questionnaire which doesn’t cost too much time.” (Respondent #11, female, 20-40)

Feeling heard

Finally, interviewees expressed a higher satisfaction in active participation when they felt that the project team sufficiently did their best to adjust the plans or sufficiently explain why it was not possible to incorporate their views in the plan. For example, one woman indicated that the project team was willing to change the meetings to a location that better fitted the preferences of the residents in the neighbourhood (see Table 8.2 "Project team factors").

“Well, the meetings were at the viaduct at first. And I asked them whether it was possible to organise the meetings in the small building at the playground for the next time, as that is more easily accessible for us. They thought it was a good idea and so it happened.” (Respondent #28, female, 60+)

Interviewees also gave examples of things they felt the project team changed in the project design based on their views, or explained why things were not changed. However, in general, residents perceived that the amount of changes that were actually made based on their input during the planning process were limited or relatively small (see Table 8.2 "Project team factors"). One woman, for example, indicated that she was part of regular discussion meetings and that she made several suggestions for improving the design of the park that is to be constructed to cover the highway. However, she did not feel that the project team really used her

ideas, which, according to her, was potentially due to a lack of financial options for really investing in the liveability of the city.

"Together with some neighbours, we organised ourselves as supporters of the plans. We came up with ideas to invest even more in liveability of the city. However, they give you the impression that they are listening, but in the end, you find out that almost nothing is actually used. It is put in a book with an overview which is sent to you and that is it. You can read that (haha) and throw it away." (Respondent #30, female, 20-40)

We should obviously mention that emotion played a role in how people spoke about their feeling of having influence (see Table 8.2 "Contextual factors"). People who feel that the plans will negatively impact their immediate surroundings were more critical about their feeling of having influence. Related to the feeling of influence, one man indicated that he was passively involved at first, and only after a while did he realize that something negative was likely going to happen due to the plan, and that action was needed. He felt disappointed about his lack of influence on the plans, but also noticed that he might have been sleeping through earlier phases of the project in which more things would still have been possible.

"I have already known about the project for a long time, but it is getting clearer and clearer how the mechanisms work. In the beginning, I was quite happy to receive a brochure with some information about what was going to happen. But after some time, I realized that the brochure only mentioned positive things, and I thought, this cannot be true. Then I heard from someone I knew that he could hardly sleep because of the project. My eyes were opened too late." (Respondent #10, male, 60+)

Furthermore, some active residents indicated that they felt that they had more influence on the project because their neighbourhood has an active front man with the right contacts. As one man living in a neighbourhood with good neighbourhood representatives indicates:

"As a neighbourhood, we have an active frontman, which is great. All council members know him. They do not dislike him, but are also not really happy about him. He is not negative, but does not give up. You need people like him to get things done." (Respondent #3, male, 40-60)

Finally, some residents indicated that their dissatisfaction with the participation possibilities provided by the project team led them decide to change their involvement preferences. This was especially the case for residents who were highly concerned about the plans. Three concerned residents indicated that they

became less actively involved in the project during the planning process to avoid too much stress. Three other interviewees indicated that they felt they had to find other ways to express their dissatisfaction with fundamental aspects of the project process and decided to become involved in a citizens' group to fight the project via providing information to residents, trying to influence politicians and formally fighting the project in court. In this way, dissatisfaction influenced a search for other ways of involvement outside the regularly provided activities.

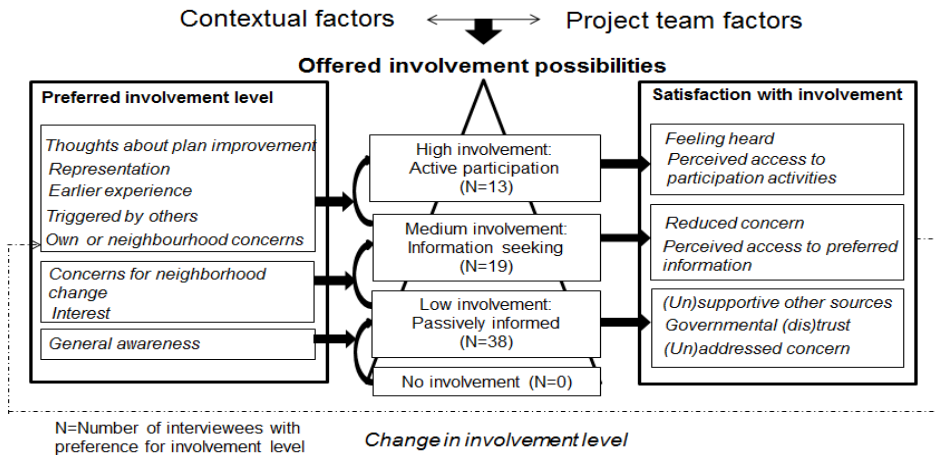


Figure 8.3 Overview of main factors in the development of residents' satisfaction with involvement efforts.

Table 8.2 Project team factors and contextual factors important in discussed themes.

Preferred involvement level	Defined themes for development of satisfaction	Project team factors	Contextual factors
High involvement: Active participation	Feeling heard	+Adjust location of meetings to participant preferences +Feedback on what is and is not included in plans and why -Only changes possible in details of the plan	-Real concerns about the project +Having a representative -Active in participation too late
	Perceived access to participation activities	- Variety in participation possibilities (now mainly informal oral assessment) + Assistance in giving written reaction ("Zienswijze")	-Other priorities/lack of time
Medium involvement: Information seeking	Reduced concern	-Uncertainty among governmental team +Face-to-face contact with people from project team +Noise simulation	-Concerns about plans

	Perceived access to (additionally) preferred information	+ Accessible website + Accessible location information meeting - Information meetings at wrong time - Difficult to get detailed/ sensitive information	-Concerns about plans
Low involvement: Passive information	Supportive other sources		-Good connection with people opposing the project +/-Other local media +Family/friend in municipality/"Rijkswaterstaat"
	Trust in government	-Unrealistic pictures +Frequent update +Information about positive and negative impacts +Information from positive and negative stakeholders -Contradicting information	+/- General (dis)trust +/- Previous experience
	Addressed concern	+Clear time schedule +Liveability consequences mentioned	+Expects not much change +Not connected to neighbourhood +Not interested in topic/ other priorities +Intentions to move +Believe in importance of good car infrastructure +Younger age +Rental house +/-Neighbourhood

- = negatively related to the theme, + = positively related to the theme

8.5 Discussion

The results show that, in understanding motivations behind the development of a resident' satisfaction with provided involvement possibilities, both the quality of the provided activities as well as (personal) contextual factors play a role. Below, we reflect on the main research findings in relation to existing theory.

Motivations of residents appeared to be influenced by the quality of the involvement activities provided by the project team. Residents referred to the extent to which governmental information was able to address concerns (stimulated by providing sufficient information about the planning of the project and about impacts on their immediate surroundings) and to create trust in the governmental project team (by giving frequent updates, providing information about the positive and negative aspects of the plan, and providing a univocal message) as important in passive information satisfaction; both aspects are also addressed in literature as important requirements for good communication (e.g., Dietz & Stern, 2008; Fewer, 2004). With regard to information-seeking activities, in line with

literature (e.g., Pinta-Correia et al., 2006) residents stressed the importance of possibilities for interactive communication with project team members during information meetings in order to reduce concerns and to get answers to their questions about future changes. This latter point is challenging to project teams in highway planning in the Netherlands (and abroad) as exact details with regard to what the design will look like are often not yet clear in phases before actual project execution. In addition, the final design is partly decided upon by the construction companies responsible for the actual construction. Furthermore, residents referred to perceived access to information seeking and participation possibilities by pointing to adequate information channels and (lack of) variation in participation activities in the development of satisfaction, which stresses the importance of inclusivity in involvement (e.g., Bickerstaff et al., 2002). With regard to information seeking, residents also pointed to perceived access to detailed or sensitive information. The latter indicates the importance of transparency, as is also stressed in literature (e.g., Welch, 2012; Grimmelhuijsen, 2012). Furthermore, for those who preferred active participation, in accordance to literature (e.g., Arnstein, 1969; Tulyer, 2012) the level of perceived input in the project appeared a main driver; the number of changes based on residents' views and proper explanation of why residents' views were (not) incorporated in the plan were mentioned as important in participation satisfaction. Interestingly, although residents provided examples of things that were changed in the project, both supporters and opponents of the project felt that the extent to which they were really listened to could be improved. This indicates the challenge of proper dialogue with stakeholders in highway planning processes in which project teams often have a narrow project scope (see e.g., Crane & Livesey, 2003; Leendertse et al., 2015), and the importance of real collaboration with residents when they are given the possibility to participate (see e.g., Arnstein, 1969; Innes & Booher, 2004; Henningsson et al., 2014).

In the meantime, the results of our study showed that contextual factors also influenced motivations behind satisfaction with involvement among residents. For example, residents described that aspects such as feeling less harm resulting from the project, lack of interest in neighbourhood developments and intentions to move house made that concerns were more easily addressed. Furthermore, residents mentioned that earlier experiences with governmental actions and other (trusted) information sources in their personal environment influenced their trust in the provided project team information. This confirms studies in other (NIMBY) research contexts, which indicate that distrust is a factor in scepticism against involvement efforts (e.g., Welch et al., 2005; Schively, 2007). Furthermore, the analysis indicated that the amount of concerns about plans and the extent to which residents feel they have good neighbourhood representatives with the right

contacts to actually influence the project was important in how involvement satisfaction was expressed. Such contextual factors should also be taken into account in understanding how residents' satisfaction with provided governmental involvement efforts comes about.

In addition, our results revealed different motivations for involvement preferences of residents during the plan process (Figure 8.2-left). Partly in line with other literature in other research contexts (e.g., Diduck & Sinclair, 2002; Mansfield et al., 2001), residents' motivations for a higher level of involvement had to do with aspects such as high concerns, interest in the neighbourhood, social cohesion, previous experiences, perceived skills and ideas about city improvement. A lack of interest was also reflected in the fact that many interviewees had no clear idea about what the project is about, despite the fact that information was provided. Residents also referred to situations in which their interests and concerns and as such their preference to seek more information or participation changed during the planning process through additional information they received. This also indicates why people might often become active too late in the planning process, when the possibilities for change in the plan have become quite limited (e.g., Leach et al., 2002; Henningsson et al., 2014). In addition, whereas some residents indicated that (dis)satisfaction changed their involvement preferences, residents did not always aim for higher participation efforts when they were dissatisfied with lower involvement possibilities. In that way, a lack of preference for higher involvement in plan processes could also be a barrier for the development of satisfaction.

8.6 Conclusion

Although many studies have looked into factors resulting in better involvement processes, there is much less insight into how residents' satisfaction with involvement possibilities develops during a planning process. This article aimed to contribute to existing knowledge by studying this development in the context of a highway infrastructure planning process, through interviewing residents about their involvement in the large adjustment project planned for the urban highway "Southern Ring Road" in the city of Groningen, the Netherlands. We found that residents' motivation for satisfaction with passively provided information relates to the extent to which it addressed concerns, governmental trust and other supportive (trusted) sources. In the case of additional information seeking, satisfaction was expressed by the perceived access to information-seeking possibilities and the extent to which those activities reduced concerns. For those who preferred to actively participate, the perceived access to participation activities and a sense of

being heard were of additional importance in the development of satisfaction with involvement possibilities. In contribution to existing literature, our qualitative analysis shows how a residents' satisfaction with governmental involvement efforts develops in the interaction between the quality of provided possibilities and contextual factors, the latter also reflected in differences in involvement preferences.

Despite the provided insights, several additional questions remain which could be addressed in further research. Firstly, whereas this study described motivations behind involvement satisfaction on different preferred involvement levels, additional research could focus on one specific level of involvement, and ask people about their experiences with certain brochures, or specific types of participation activities they were involved in. This could bring a more detailed understanding of involvement activities especially liked and disliked and needed by different groups of people, where this was only covered by the present analysis on a basic level. Secondly, to improve generalization of findings, it is worthwhile to study motivations of residents in other residential areas or project contexts in order to enrich insights into motivations behind the evaluation of project involvement activities in different contextual circumstances. And thirdly and finally, it might be interesting to quantitatively study how specific types of involvement activities relate to people's acceptance of highway projects in different phases of the planning process.

The findings indicate several recommendations for highway infrastructure planning. For example, the importance of contextual aspects such as earlier experiences with governmental actions in a resident's evaluation of involvement possibilities implies that governmental project teams should be aware that the impact of their activities in areas goes beyond their own project scope (e.g., Kasperson et al., 1992). In turn, this means that project teams have to deal with the legacy and actions of previous projects which have taken place in the residential areas in which they are operating. The awareness of the interaction between projects and their broader environment (e.g., Arts et al., 2014) is essential in creating acceptance of projects on the longer term. The findings also indicate that motivations such as living further away from the project, benefitting more from infrastructure investment and feeling less attachment to the neighbourhood - played a role in an easier information satisfaction. It might be worthwhile to distinguish between groups with different involvement needs, to make involvement activities more effective. In addition, the analyses indicated the importance of a good-quality involvement process with sufficient levels of communication, inclusivity, transparency and active participation in creating satisfaction. However, those aspects are not straightforward in highway planning processes in which residents have different interests, all the information is not always available yet,

different national and local interests have to be balanced and project scopes are tight. Nevertheless, based on residents' stories, some guidelines could be provided. For example, providing a variety in communication and participation possibilities to residents in both oral and written form could increase inclusivity in involvement. Furthermore, being accessible for residents with questions or concerns, being knowledgeable on the implications for the broader residential neighbourhood and maintaining a good contact with key neighbourhood representatives could help in improving communication. This also involves a proper internal communication; providing a univocal message by different people representing the project seems important in creating trust among residents. Transparency could be stimulated by clearly communicating why decisions are taken and why information could not be provided, or how information should be interpreted. Finally, when people are asked to participate, there should be sufficient space for taking in their views; early involvement in plans is therefore essential (see also Elverding, 2008; Henningsson et al., 2014). This means that participation activities should focus on the moments where residents can actually have a say and the implementation of residents' views into the plan should be clearly communicated. Meanwhile, it is worthwhile to look for ways in which the project scope could be extended to provide more possibilities for incorporating residents' views. In this way, a greater acceptance of highway infrastructure projects could be established.

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